

CLAIMS

1. A recording and/or reproducing apparatus for a recording medium in a write-once recording area of which allowing for writing data once the management information and the user data are recorded, and in which the written/ unwritten indicating information indicating whether data has been written in each data unit in at least an area for recording said user data and the last recording position information indicating the last position of recording of the recorded user data are recorded as said management information, said apparatus comprising:

a recording and/or reproducing unit for recording and/or reproducing data for said recording medium;

a storage unit for storage of the management information read out from said recording medium; and

a controller for updating the contents of the management information stored in said recording unit, responsive to execution of data recording by said recording and/or reproducing unit, and for causing said recording and/or reproducing unit to record the management information, stored in said storage unit, on said recording medium, responsive to generation of an unrecorded area in a range up to a location on said recording medium indicated by said last recording position of said management information.

2. The recording and/or reproducing apparatus according to claim 1, wherein said controller is responsive to extinction of said unrecorded area in said range up to the

location indicated by said last recording position information to cause said recording and/or reproducing unit to record the management information stored in said storage unit on said recording medium.

3. The recording and/or reproducing apparatus according to claim 1, wherein said controller executes the processing of confirming whether or not said last recording position information in the management information read out from said recording medium and stored in said storage unit is matched to the last position of the recorded user data on said recording medium; said controller updating the last recording position information in the management information stored in said storage unit in case of non-matching.

4. The recording and/or reproducing apparatus according to claim 1, wherein said controller executes the processing of confirming whether or not said unrecorded area determined by said written/ unwritten indicating information in the management information read out from said recording medium and stored in said storage unit is matched to said unrecorded area on said recording medium; said controller updating the written/ unwritten indicating information in the management information stored in said storage unit in case of non-matching.

5. A recording and/or reproducing method for a recording medium in a write-once recording area of which allowing for writing data once the management information and the user data are recorded, and in which the written/ unwritten indicating information indicating whether data has been written in each data unit in at least an

area for recording said user data and the last recording position information indicating the last position of recording of the recorded user data, are recorded as said management information, said method comprising:

a step of reading out the management information from said recording medium for storage in a storage unit;

a step of updating the contents of the management information stored in said storage unit, responsive to execution of the data recording on said recording medium; and

a management information recording step of recording the management information stored in said storage unit, on said recording medium, responsive to generation of an unrecorded area in a range up to a location on said recording medium indicated by said last recording position information of said management information updated in said updating step.

6. The recording and/or reproducing method according to claim 5, wherein said management information recording step is responsive to extinction of said unrecorded area in said range up to the location indicated by said last recording position information to cause said management information stored in said storage unit to be recorded on said recording medium.

7. The recording and/or reproducing method according to claim 5, further comprising:

a step of verifying whether or not said last recording position information in

said management information read out from said recording medium and stored in said storage unit is matched to the last position of the recorded user data on said recording medium, and

a matching step of updating said last recording position information in said management information stored in said storage unit in case said verifying step has verified non-matching.

8. The recording and/or reproducing method according to claim 5, further comprising:

a step of confirming whether or not said unrecorded area determined by said written/ unwritten indicating information in the management information read out from said recording medium in said recording step and stored in said storage unit is matched to said unrecorded area on said recording medium; and

a step of updating the written/ unwritten indicating information in the management information stored in said storage unit in case said verifying step has verified non-matching.